

(The Notice of References Cited lists U.S. patent 6,023,366, the Information Disclosure Statement, filed December 21, 2000 lists a Kinoshita publication, entitled "Large Capacity WDM Transmission Based on Wideband Erbium-Doped Fiber Amplifiers.") In either event, the Office Action recognizes that Kinsoshita does not teach a filter capable of adjusting a gradient of loss with respect to wavelength. Clapp is relied upon, at lines 19-20 of the section "Principle of operation," for teaching a filter that is capable of adjusting the gradient of loss with respect to wavelength. The Office Action concludes that "[i]t would have been to modify Kinoshita in view of Clapp in order to compensate for gain tilt and thereby preventing loss of channels." Reconsideration of this conclusion is respectfully solicited.

Both the Kinoshita publication and the Kinoshita patent (hereinafter '366) are attributable to the same inventor - Susumu Kinoshita. The '366 patent discloses an optical amplifier having a variable attenuator as shown in Figs. 12 and 16. As described from column 12, line 49 to column 16, line 59, a variable attenuator is used to control the output multiplexed light level and ALC is used to amplify light with constant gain tilt. For keeping gain tilt constant the gain of ALC is controlled. This system ALC is not used for controlling the output level.

The sole basis for reliance on Clapp is the statement therein: "By including further electrodes a variable slope can also be achieved." Clapp does not disclose how further electrodes are "to be included" nor how such an undisclosed arrangement would achieve variable slope. In fact, Clapp does not define what is meant by "variable slope." One of ordinary skill in the art is given no guidance by the Clapp disclosure as to how to configure the multiple additional electrodes nor how control of the resulting system is to

be accomplished. It is submitted that, given such lack of disclosure in Clapp, the artisan would have had no motivation to modify Kinoshita nor have found reason for providing Kinoshita with a variable slope. Even with the application of inappropriate hindsight, one is still at a loss as to precisely how the Examiner proposes to modify Kinoshita as set forth in the Office Action.

Legal precedent is well developed on the propriety of rejections made on the basis of 35 U.S.C. §103. It is incumbent upon the Patent and Trademark Office to factually support a conclusion of obviousness. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The PTO is thus charged with the initial burden of identifying a source in the applied prior art for: (1) claim features; and (2) realistic requisite motivation for combining applied references to arrive at the claimed invention with a reasonable expectation of successfully achieving a specific benefit. *Smith Industries Medical Systems v. Vital Signs*, 183 F.3d 1347, 51 USPQ2d 1415 (Fed. Cir. 1999).

The examiner must provide a reason **why** one having ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). The examiner should recognize that even if the prior art *could* be modified so as to result in the combination defined by the claims the modification would not have been obvious unless the prior art suggested the desirability of the modification. *In re Deminski*, 796 F.2d 436, 230 USPQ

313 (Fed. Cir. 1986). In the absence of such a prior art suggestion for modification of the references, the basis of the rejection is no more than inappropriate hindsight reconstruction using appellant's claims as a guide. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967).

What may or may not be known in *general* does not establish the requisite realistic motivation. *In re Deuel*, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995). The requisite motivation to support the ultimate legal conclusion of obviousness under 35 U.S.C. §103 is not an abstract concept, but must stem from the applied prior art as a whole and have realistically impelled one having ordinary skill in the art, at the time the invention was made, to modify a reference in a specific manner to arrive at a specifically claimed invention with a reasonable expectation of achieving a specific benefit. *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (Fed. Cir. 1989). Teachings of references can be combined only if there is some suggestion or incentive to do so; *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Even when the level of skill in the art is high, the examiner must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Office Action must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious; *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). Deficiencies of the cited references cannot be remedied by general conclusions about what is "basic knowledge" or "common sense," which do not substitute for authority; *In re Sang Su Lee*, __ F.3d __, __ USPQ2d __ (Fed. Cir. 2001). Accordingly, it

is urged that the rejection of claims 1 through 3, 5, 6 and 12 under 35 U.S.C. §103(a) be withdrawn.

Claim 4 has been rejected (Office Action, paragraph 2) under 35 U.S.C. §103(a) as being unpatentable over Kinoshita in view of Clapp and U.S. patent 5,966,236 (Okuno). Claim 4 is dependent from claim 1. In addressing an additional claim element that is lacking in Kinoshita, the Office Action relies on Okuno for concluding that it would have been obvious to further modify the Kinoshita apparatus "to include the channel counting device of Okuno in order to allow for the number of channels to be variable." Again, no specific modification has been proffered in the Office Action. It is submitted that, with or without hindsight, the reference teachings are insufficient to have led a person of ordinary skill in the art to a specific embodiment that includes a variable filter as well as providing a variable number of channels. Withdrawal of this rejection is respectfully solicited.

Claims 7 and 8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kinoshita in view of Clapp and "Inoue" at paragraph 3 of the Office Action. Claims 7 and 8 also depend from claim 1. Inoue, which does not appear in the Notice of References Cited by the Examiner, has not been further identified. The Information Disclosure Statement, filed December 21, 2000 lists a Japanese patent 04147114 (inventor Inoue et al.) and an Inoue publication, entitled "Tunable Gain Equalization Using a Mach-Zehnder Optical Filter in Multistage Fiber Amplifiers." Without pointing out what portion of which of these references is relied upon, the Office Action asserts that Inoue teaches means for detecting each wavelength and power of signal light components. The Office Action then simply concludes, without describing a specific

modification, that it would have been obvious, not only to provide a variable filter in Kinoshita but also to supply information from spectrum detecting means to control the non-described variable filter. It is respectfully submitted that rejection relies on inappropriate hindsight reconstruction; withdrawal of the rejection is solicited.

Claim 9 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kinoshita in view of Clapp and U.S. patent 6,049,413 at paragraph 4 of the Office Action. Claim 9 is dependent from claim 1 and thus also requires the variable filter feature. Taylor has been relied upon, not for teaching such feature, but for teaching "ASE detection means for detecting ASE levels and control means for adjusting the gradient of a filter so that the level difference between ASE light levels becomes constant." The Office Action sets forth no relevance of such teaching to the disclosure of Kinoshita and is silent as to any conclusion of obviousness. Withdrawal of this rejection is respectfully solicited.

Claims 10 and 11 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kinoshita in view of Clapp and the '366 patent at paragraph 5 of the Office Action. Claim 13 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kinoshita in view of Clapp and U.S. patent 5,448,390 (Tsuchiya) at paragraph 6 of the Office Action. These claims all depend from claim 1. No specific modification of Kinoshita for provision of the variable filter feature has been set forth in the Office Action. The Office Action recognizes that Kinoshita lacks additional requirements of the dependent claims. While the Office Action concludes that it would have been obvious to include the functionality performed by the claim elements in the Kinoshita device, such conclusion cannot appropriately substitute for a specific

modification and rationale as to what would have led the artisan to such a specific modification. Withdrawal of these rejections is respectfully solicited.

Claims 14 through 16, 20 and 25 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. patent 5,374,973 (Maxham) in view of Clapp. Claim 14 is the only independent claim from which the other claims depend. The Office Action (paragraph 7), without any other discussion of Maxham, states that Maxham does not teach an optical filter. In support of the rejection, the Office Action apparently relies the one sentence disclosure in Clapp of adjusting gradient to reduce wavelength-dependent gain in amplification. The statement of the rejection does not mention the word "obvious" let alone describe in any specificity what modification of Maxham is proposed or what in the references would have suggested a modification. It is submitted that the Office Action fails to set forth a *prima facie* rejection. Withdrawal of the rejection is respectfully solicited.

Claim 17 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and Okuno at paragraph 8 of the Office Action. This paragraph makes no statement of obviousness with respect to Maxham, of what *specific* modification of the prior art that the examiner proposes, nor of why an artisan would have been led to modification by incorporating various aspects of both Clapp and Okuno. While it is presumed that Clapp is relied upon for the same reason as applied to the rejection of the parent claim 14, it is submitted that there is no specific teaching in that reference sufficient to have led the artisan to the proposed modification.

Claim 18 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and Taylor (Office Action, paragraph 9). Claim 19 has been

rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and U.S. patent 5,995,275 (Sugaya - '275) at paragraph 10 of the Office Action. Claim 21 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and U.S. patent 6,292,289 (Sugaya - '289) at paragraph 11 of the Office Action. Claims 22 through 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and the '366 patent (Office Action, paragraph 12). Claim 27 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Maxham in view of Clapp and Tsuchiya (Office Action, paragraph 13).

All of these rejections are based on the position that Maxham lacks not only requirements of independent claim 14, but also individual requirements of the dependent claims. The modification of Maxham purportedly suggested by Clapp, a modification not described specifically, still lacks the further requirements of these claims. Thus individual tertiary references have been added in the rejection in piece-meal fashion to fill in the gaps. It is submitted that conclusions of obviousness based on such a hindsight approach do not establish tenable rejections. Withdrawal of these rejections is respectfully solicited.

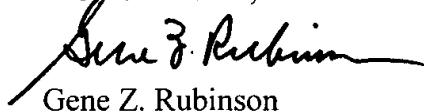
It is submitted that the present application is presently in condition for allowance. Withdrawal of all rejections and allowance are respectfully solicited. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please

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charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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